CLAIMS

What is claimed is:

1. A method of remotely detecting vulnerabilities on a local computer, comprising:

a) installing an agent on a local computer;

b) receiving encrypted commands for executing a risk-assessment scan from a remote computer utilizing a network;

c) decrypting the commands on the local computer utilizing the agent;

d) processing the commands on the local computer utilizing the agent; and

e) performing the risk-assessment scan on the local computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer.

2. The method as recited in claim 1, wherein the agent includes a plurality of risk-assessment modules.

3. The method as recited in claim 2, wherein the commands execute the risk-assessment modules in a specific manner that is configured at the remote computer.

4. The method as recited in claim 2, wherein the risk-assessment modules are selected for the agent based on specifications of the local computer.

5. The method as recited in claim 2, wherein the risk-assessment modules include a STAT module for performing a stat system call on a file, a READ module for reading a file, a READDIR module for returning contents of a directory, a FIND module for locating a list of files based on a given function, a GETPWENT module for retrieving an entry from a password

database, a GETGRENT module for retrieving an entry from a group database, a CHKSUM module for performing a checksum operation on a file, and an EXEC module for executing a command.

6. The method as recited in claim 2, wherein the risk-assessment modules are selected from the group consisting of a STAT module for performing a stat system call on a file, a READ module for reading a file, a READDIR module for returning contents of a directory, a FIND module for locating a list of files based on a given function, a GETPWENT module for retrieving an entry from a password database, a GETGRENT module for retrieving an entry from a group database, a CHKSUM module for performing a checksum operation on a file, and an EXEC module for executing a command.

7. The method as recited in claim 1, wherein the commands each indicate at least one of the risk-assessment modules.

8. The method as recited in claim 7, wherein the commands are processed by extracting parameters associated with the commands, and executing the risk-assessment modules indicated by the commands utilizing the associated parameters.

9. The method as recited in claim 1, and further comprising transmitting results of the risk-assessment scan from the local computer to the remote computer utilizing the network.

10. The method as recited in claim 9, and further comprising receiving feedback to the results from the remote computer utilizing the network.

11. The method as recited in claim 1, wherein the commands are decrypted utilizing a shared key.

12. A computer program product of remotely detecting vulnerabilities on a local computer, comprising:

a) computer code for installing an agent on a local computer;

b) computer code for receiving encrypted commands for executing a risk-assessment scan from a remote computer utilizing a network;

c) computer code for decrypting the commands on the local computer utilizing the agent;

d) computer code for processing the commands on the local computer utilizing the agent; and

e) computer code for performing the risk-assessment scan on the local computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer.

13. The computer program product as recited in claim 12, wherein the agent includes a plurality of risk-assessment modules.

14. The computer program product as recited in claim 13, wherein the commands execute the risk-assessment modules in a specific manner that is configured at the remote computer.

15. The computer program product as recited in claim 13, wherein the risk-assessment modules are selected for the agent based on specifications of the local computer.

16. The computer program product as recited in claim 13, wherein the risk-assessment modules include a STAT module for performing a stat system call on a file, a READ module for reading a file, a READDIR module for returning contents of a directory, a FIND module for locating a list of files based on a given function, a GETPWENT module for retrieving an entry from a password database, a GETGRENT module for retrieving an entry

from a group database, a CHKSUM module for performing a checksum operation on a file, and an EXEC module for executing a command.

17. The computer program product as recited in claim 13, wherein the risk-assessment modules are selected from the group consisting of a STAT module for performing a stat system call on a file, a READ module for reading a file, a READDIR module for returning contents of a directory, a FIND module for locating a list of files based on a given function, a GETPWENT module for retrieving an entry from a password database, a GETGRENT module for retrieving an entry from a group database, a CHKSUM module for performing a checksum operation on a file, and an EXEC module for executing a command.

18. The computer program product as recited in claim 12, wherein the commands each indicate at least one of the risk-assessment modules.

19. The computer program product as recited in claim 18, wherein the commands are processed by extracting parameters associated with the commands, and executing the risk-assessment modules indicated by the commands utilizing the associated parameters.

20. The computer program product as recited in claim 12, and further comprising computer code for transmitting results of the risk-assessment scan from the local computer to the remote computer utilizing the network.

21. The computer program product as recited in claim 20, and further comprising computer code for receiving feedback to the results from the remote computer utilizing the network.

22. The computer program product as recited in claim 12, wherein the commands are decrypted utilizing a shared key.

23. A system of remotely detecting vulnerabilities on a local computer, comprising:

a) an agent installed on a local computer for receiving encrypted commands for executing a risk-assessment scan from a remote computer utilizing a network, decrypting the commands on the local computer, and processing the commands on the local computer; and

b) wherein the risk-assessment scan is performed on the local computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer.

24. A system of remotely detecting vulnerabilities on a local computer, comprising:

a) means for installing an agent on a local computer;

b) means for receiving encrypted commands for executing a risk-assessment scan from a remote computer utilizing a network;

c) means for decrypting the commands on the local computer utilizing the agent;

d) means for processing the commands on the local computer utilizing the agent; and

e) means for performing the risk-assessment scan on the local computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer.

25. A method of remotely detecting vulnerabilities from a remote computer, comprising:

a) sending encrypted commands from a remote computer to an agent on a local computer for executing a risk-assessment scan utilizing a network, the commands adapted for being decrypted and processed on the local computer utilizing the agent for performing the risk-assessment scan on the local

computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer;

b) receiving results of the risk-assessment scan from the local computer utilizing the network; and

c) transmitting feedback to the results from the remote computer to the local computer utilizing the network.

26. A computer program product of remotely detecting vulnerabilities from a remote computer, comprising:

a) computer code for sending encrypted commands from a remote computer to an agent on a local computer for executing a risk-assessment scan utilizing a network, the commands adapted for being decrypted and processed on the local computer utilizing the agent for performing the risk-assessment scan on the local computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer;

b) computer code for receiving results of the risk-assessment scan from the local computer utilizing the network; and

c) computer code for transmitting feedback to the results from the remote computer to the local computer utilizing the network.

27. A method of remotely detecting vulnerabilities on a local computer, comprising:

a) installing an agent on a local computer, the agent including a plurality of risk-assessment modules selected based on at least one aspect of the computer;

b) receiving encrypted commands for executing a risk-assessment scan from a remote computer utilizing a network;

c) decrypting the commands on the local computer utilizing the agent;

d) authenticating the commands on the local computer utilizing the agent;

e) processing the commands on the local computer utilizing the agent, the commands adapted to execute the risk-assessment modules in a specific manner that is configured at the remote computer;

f) performing the risk-assessment scan on the local computer in accordance with the processed commands to remotely detect local vulnerabilities on the local computer;

g) transmitting results of the risk-assessment scan from the local computer to the remote computer utilizing the network;

h) receiving feedback to the results from the remote computer utilizing the network.